

Abstract

The construction material on a plant basis PB (preferably miscanthus) contains a binder and a mineralizer composed of a defined mixture M2 of calcium carbonate CaCO_3 and magnesium carbonate MgCO_3 that is prepared in an application-oriented manner, thereby resulting in a substantial improvement of its chemical, physical, and mechanical properties. The weight proportions of the components constituting said mixture M2 are comprised between approx. 60 % and approx. 95 %, preferably between 2/3 and 9/10, for the CaCO_3 , and between approx. 5 % and approx. 40 %, preferably between 1/10 and 1/3, for the MgCO_3 . The method for producing said construction material is rationalized by previously admixing the mineralizer to the binder, preferably Portland cement of strength class 52.5, directly at the binder plant according to determined specifications to obtain a mixture M1. The weight proportions of the components constituting the mixture M1 are comprised between approx. 50 % and approx. 90 %, preferably between 6/10 and 4/5, for the binder, and between approx. 10 % and approx. 50 %, preferably between 1/5 and 4/10, for the mineralizer. In order to improve the solidification process, a fungicidal preparation is added to the mixing water. A universal construction material allowing innumerable applications can be produced from the aggregate {PB + M1}. The range of applications is further enlarged by adding another application-oriented mixture M3 to said aggregate in defined proportions (e.g. gypsum for producing quick-assembly structural panels) or a flow agent in order to allow an extrusion method (e.g. for producing bar-shaped elements)).